

## PATENT ABSTRACTS OF JAPAN

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## (54) POLYMER CROSS-LINKED WITH METAL COMPOUND ION AND PRODUCTION THEREOF

## (57)Abstract:

PURPOSE: To obtain an ion-cross-linked polymer improved in material properties by mixing a dispersion of fine metal compound particles with a solution of an ionic polymer to cross-link the polymer and precipitate the cross-linked polymer.

CONSTITUTION: An ionic polymer is dissolved in water. NaOH is added thereto convert reactive groups into an Na salt form, because the reactive groups are less apt to ionically bond to metal compound if they remain unconverted. Fine metal compound particles are then added to the solution. The mixture is stirred to cause cross-linking of the reactive groups with the metal compound. The reaction mixture is washed with water and filtered to remove unreacted substances, and the reaction product is dried to obtain the desired polymer. This polymer has a structure formed by cross-linking the polymer with the particles. The polymer is not limited as long as it dissolves in a solvent and has reactive groups cross-linkable with the metal compound. Examples thereof include anionic polymers such as poly(acrylic acid) and poly(sulfonic acid) and cationic polymers.

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